UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,723	11/16/2001	Vibhor Julka	4740-029	2830

24112	7590	08/01/2006

COATS & BENNETT, PLLC
P O BOX 5
RALEIGH, NC 27602

EXAMINER
PEREZ, JULIO R

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/002,723	JULKA ET AL.
	Examiner	Art Unit	
	Julio R. Perez	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 May 2006</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,13-27,29,33,34,36-46 and 50-65* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,13-27,29,33,34,36-46 and 50-65* is/are rejected.

7)☒ Claim(s) *9-12,30-32 and 47-49* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

2.   The indicated allowability of claims 25-27, 29-34, 36-40, 60-65, is withdrawn in

view of the newly discovered reference(s) to Lim et al., US Patent Number 7,035,636.

Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-8, 13-27, 29, 33-34, 36-46, 50-65, are rejected under 35 U.S.C. 102(e)

as being by Lim et al. (hereinafter Lim), US Patent Number 7,035,636.

        Regarding claims 1, 25, 41, Lim discloses a wireless communication network, a

session controller (i.e., location management function), and a method of mobility

comprising: a packet control function (column 4, lines 35-37, a packet control function

may be provided); a plurality of access network controllers connected to the packet

control function for communicating with an access terminal engaged in a communication

session (column 2, lines 61-67; column 4, lines 4-16, several RNCs are provided for

communicating active terminals with RNCs and PDN); a session controller having memory for storing session information used by one or more of the access network controllers to communicatively couple the access terminal to the packet control function during the communication session, and routing information indicating which of the plurality of access network controllers, (i.e., RNCs), is currently identified with the access terminal (i.e., terminals), (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42; column 5, lines 1-11, the location management function, which contains a location management unit, in conjunction with the HLR and VLR, serves as a "session controller", as it provides mobility management, which similarly is the function of a "session controller", and containing the routing information for the terminals to communicate with the new or target RNC); and wherein, in response to transfer of the access terminal from a first one of the access network controllers to a second one of the access network controllers, the session controller sends the session information stored in the session controller to the second access network controller, and to redirect service requests received by a first access network controller from a packet control function to a second access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28; the management unit controls the mobility of the active terminal, i.e., 11, from RNC 1 to RNC2; further providing the information contained from the first RNC to the target RNC).

Regarding claim 2, Lim discloses, wherein the transfer is a dormant handoff (column 4, lines 60-63, transferring the terminal from one RNC to another RNC is done during a suspended or dormant state).

Regarding claims 3, 26, Lim discloses, wherein the second access network controller queries the session controller for session information associated with the access terminal responsive to the transfer of the access terminal from the first access network controller to the second access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claims 4, 27, Lim discloses, wherein the session controller provides the session information associated with the access terminal to the second access network controller responsive to receiving a query from the second access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).).

Regarding claim 5, 29, Lim discloses, wherein the first access network controller removes session information for the access terminal stored in the first access network controller in response to the transfer of the access terminal from the first access network controller to the second access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 6, Lim discloses, wherein the first access network controller removes session information for the access terminal in response to a cancellation request message from the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 7, Lim discloses, wherein the session controller further stores in

memory routing information indicating which of the plurality of access network

controllers is currently identified with the access terminal by the session controller

(column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5,

lines 1-25; column 6, lines 21-28).

Regarding claims 8, 33, Lim discloses, wherein the session controller updates

the routing information in response to the transfer of the access terminal from the first

access network controller to the second access network controller (column 2, lines 65-

67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6,

lines 21-28).

Regarding claim 13, Lim discloses, wherein the session controller updates the

routing information responsive to a session cancellation message from an access

network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42,

47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claims 14, 34, Lim discloses, wherein the session controller sends a

session update message to one or more of the access network controllers if the session

controller detects that the access terminal is not currently identified with any one of the

plurality of access network controllers (column 2, lines 65-67; column 3, lines 1-7;

column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 15, Lim discloses, wherein the access network controllers page

the access terminal in response to receipt of the session update message by the access

network controllers (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42,

47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 16, Lim discloses, wherein the access network controllers send

a session cancellation message to the session controller if the access terminal does not

respond to the page within a predetermined time, and wherein the session controller

updates the routing information responsive to the session cancellation message

(column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5,

lines 1-25; column 6, lines 21-28).

Regarding claim 17, Lim discloses, wherein the packet control function maintains

routing information in memory indicating which access network controller is currently

identified with the access terminal by the packet control function (column 2, lines 65-67;

column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines

21-28).

Regarding claim 18, Lim discloses, wherein the packet control function updates

the routing information when the packet control function receives a connection request

associated with the access terminal from one of said plurality of access network

controllers (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67;

column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 19, Lim discloses, wherein the packet control function sends a

service request to the access network controller currently identified with the access

terminal by the packet control function in response to receiving data to be delivered to

the access terminal (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 20, Lim discloses, wherein the access network controller receiving the service request from the packet control function initiates redirection of the service request received from the packet control function if the access network controller does not have session information associated with the access terminal (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 21, Lim discloses, wherein redirecting the service request comprises: sending a notification from the access network controller receiving the service request to the session controller; and sending a connection setup request from the session controller to the access network controller currently identified with the access terminal by the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 22, Lim discloses, wherein the access network controllers are operative to send a connection request to the packet control function to establish a connection with said packet control function responsive to receiving a connection setup request from the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claims 23, 39, 58, Lim discloses, wherein the network comprises an IXEVDO wireless communication network (column 7, lines 60-62; Figure 2).

Regarding claims 24, 40, 59, Lim discloses, wherein the session controller assigns a Universal Access Terminal Identifier to said access terminal (column 7, lines 60-62).

Regarding claim 36, Lim discloses, wherein redirecting service requests sent by the packet control function to a first access network controller comprises: receiving a service request notification from said first access network controller; and sending a connection setup request to the second access network controller, which is currently identified with the access terminal by the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 37, Lim discloses, wherein the session information comprises data connection information associated with a data connection between the access terminal and a packet control function in the wireless communication network (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 38, Lim discloses, wherein the data connection information comprises IP address information and network identifier information associated with the access terminal (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 42, Lim discloses, further comprising generating the session information request at a second access network controller responsive to the transfer of the access terminal from a first access network controller to the second access network

controller, and sending the session information request from the second access network controller to the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 43, Lim discloses, further comprising sending a cancellation request from the session controller to the first access network controller to initiate removal of the session information stored in the first access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 44, Lim discloses, further comprising removing session information associated with the access terminal stored in the first access network controller in response to the cancellation request message (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 45, Lim discloses, further comprising storing routing information in the session controller indicating which of the plurality of access network controllers is currently identified with the access terminal by the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 46, Lim discloses, further comprising updating the routing information in response to a transfer of the access terminal from a first access network controller to a second access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 50, Lim discloses, further comprising sending a session cancellation message from an access network controller currently identified with the access terminal to the session controller, and updating the routing information stored in the session controller in response to the session cancellation message ((column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 51, Lim discloses, further comprising sending a session update message from the session controller to one or more of the access network controllers when the session controller detects that the access terminal is not currently identified with any one of the plurality of access network controllers ((column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28)).

Regarding claim 52, Lim discloses, further comprising paging the access terminal by the one or more access network controllers in response to the session update message (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 53, Lim discloses, further comprising sending a session cancellation message from an access network controller to the session controller if the access network controller does not receive a response from the access terminal to a paging message sent by the access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 54, Lim discloses, further comprising redirecting a service

request received by a first access network controller from a packet control function to a

second access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4,

lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 55, Lim discloses, wherein redirecting a service request

comprises: sending a service request notification from the first access network controller

to the session controller; and sending a connection setup request from the session

controller to the second access network controller currently, which is currently identified

with the access terminal by the session controller (column 2, lines 65-67; column 3,

lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 56, Lim discloses, further comprising maintaining routing

information at the packet control function indicating which of the access network

controllers is currently identified with the access terminal by the packet control function

(column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5,

lines 1-25; column 6, lines 21-28).

Regarding claim 57, Lim discloses, further comprising updating the routing

information when the packet control function receives a connection identified with the

access terminal from an access network controller (column 2, lines 65-67; column 3,

lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 60, Lim discloses, a method of re-establishing a data connection

between a packet control function and a dormant access terminal that has moved from

a first access network controller to a second access network controller, said method

comprising: sending a service request from the packet control function to the first access network controller indicated by routing information stores in the packet control function as being currently identified with said access terminal controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28); sending a service request notification from the first access network controller to a session controller ((column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28, the terminal moves from its old RNC location to a new location of a new RNC wherein the communication information within the old MSC/VLR is passed to the new BSC by the MSC/VLR); sending a connection setup request from said session controller to said second access network controller indicated by routing information stored in said session controller as being currently identified with said access terminal ((column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28); and sending a connection request from said second access network controller to said packet control function ((column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 61, Lim discloses, wherein said packet control function updates its routing information to indicate that said second access network controller is currently identified with the access terminal by the packet control function in response to receiving the connection request from the second access network controller function (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 62, Lim discloses, further comprising storing session information associated with the dormant access terminal in the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 63, Lim discloses, further comprising sending the session information stored in the session controller to the second access network controller responsive to the movement of the access terminal from the first access network controller to the second access network controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 64, Lim discloses, wherein the second access network controller sends a session information request to the session controller in response to the movement of the access terminal from the first access network controller to the second access network controller, and wherein sending the session information stored in the session controller to the second access network controller includes sending the session information stored in the session controller to the second access network controller responsive to receiving the session information request by the session controller (column 2, lines 65-67; column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Regarding claim 65, Lim discloses, further comprising using the session information at the second access network controller to reestablish a data connection between the access terminal and the packet control function (column 2, lines 65-67;

column 3, lines 1-7; column 4, lines 20-42, 47-67; column 5, lines 1-25; column 6, lines 21-28).

Response to Arguments

5.   Applicant's arguments with respect to claims 1-8, 13-24, 41-46, have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

6.   Claims 9-12, 30-32, 47-49, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R. Perez whose telephone number is (571) 272-7846. The examiner can normally be reached on 10:30 - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272- 4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julio R Perez
Examiner
Art Unit 2617

7/21/06

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER